

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor: Coble et al.

Serial No: 10/672,421

Filing Date: 9/26/03

Title: CEILING FIXTURE SUPPORT  
WITH SHALLOW HOUSING

Group Art Unit: 3632

Examiner: Chan, Korie H.

**RESPONSE**

Attention: Board of Patent Appeals and Interferences  
Assistant Commissioner of Patents and Trademarks  
Washington, DC 20231

Sir:

**BRIEF ON APPEAL**

This Brief supports the appeal to the Board of Patent Appeals and Interferences from the final rejection dated December 20, 2005, in the application listed above. Appellants filed the Notice of Appeal on April 21, 2006, and now submit this Brief in triplicate, as required by 37 C.F.R. § 1.192(a).

**I. REAL PARTY IN INTEREST**

Pass & Seymour, Inc., as assignee of U.S. Patent Application No. 10/672,421, is the real party in interest.

**II. RELATED APPEALS AND INTERFERENCES**

There are no related appeals or interferences pertaining to the above identified application.

**III. STATUS OF CLAIMS**

A. Claims 10, 13, and 15 are Patentable

The Examiner has indicated that the subject matter of claims 10, 13, and 15 are patentable and would be allowable if rewritten in independent form.

B. Claims 6 and 11 are canceled

C. Claims 16 – 18 were withdrawn from consideration

The Examiner made an improper Election of Species Requirement at the outset of the Examination process. Claims 16 – 18 are dependent claims that depend directly from claim 1. Accordingly, claim 1 is a generic claim. Since claims 16 – 18 depend from claim 1, they in fact include all of the limitations of claim 1 and should be deemed allowable if claim 1 is found to be allowable.

D. Claims 1 – 5, 7 – 9, and 19 – 21 are Finally Rejected

Claims 1 – 5, 7 – 9, and 19 – 21 were rejected in the final Office Action dated December 20, 2005.

E. Claims 1 – 5, 7 – 9, and 19 – 21 Are On Appeal

The decision of the U.S. Patent and Trademark Office (“the Patent Office”) that finally rejected claims 1 – 5, 7 – 9, and 19 – 21 is hereby appealed.

**IV. STATUS OF AMENDMENTS**

No Amendments were filed after the Final Rejection.

**V. SUMMARY OF INVENTION**

A. Problems in the Prior Art

Ceiling mounted wiring devices such as light fixtures, ceiling fans, or a combination thereof must be securely anchored to a ceiling joist, or some other structural member that is capable of supporting the device. For safety and convenience reasons, the wiring device is usually not directly connected to the structural member. A ceiling fixture support assembly is first anchored to the structural member and the device is subsequently installed on the fixture support assembly. The fixture support assembly

typically includes a ceiling box that is anchored to the structural support member and a fixture support that couples the wiring device to the ceiling box.

A wiring device may include a large static load such as a heavy motor or a chandelier. Some wiring devices also apply dynamic loads. For example, the rotation of the fan blades of a ceiling fan represents a large dynamic load. Prior art ceiling fixture support assemblies including the ceiling boxes and the fixture supports are sized to accommodate the aforementioned static and dynamic loads. What is needed is a shallow housing having a compact fixture support structure that is able to withstand the static and dynamic loads applied by large wiring devices.

B. Detailed description of the Present Invention

The present invention is directed to a ceiling fixture support assembly for mounting an electrical fixture to at least one structural support member. The assembly includes an electrical box that includes a base member and a side member. The base member is substantially disk shaped having a first beveled edge, and a second beveled edge that is disposed parallel to the first beveled edge. The side member is connected to the base member to form an interior volume. The side member has a first flat portion corresponding to the first beveled edge and a second flat portion corresponding to the second beveled edge. There are a plurality of slots formed in the base member.

The present invention also includes a fixture support assembly. The fixture support assembly has two fixture supports. One fixture support is configured to mate with an opening disposed in one of the side member's flat portions. The other fixture support mates with a second opening disposed in the other side member flat portion. The fixture supports are configured to support the electrical ceiling fixture within the electrical box's interior volume.

The ceiling fixture support assembly of the present invention also has a mounting assembly. The mounting assembly includes a bracket having a plurality of tab members configured to be inserted into the plurality of slots disposed in the base portion of the electrical box. The plurality of tab members and the base member form a channel that is configured to receive a structural member, such as a joist, therein. The tab members have holes configured to receiver fastener elements. Of course, the fastener elements are used

to attach the tab members to the structural member, in turn, coupling the electrical box to the structural support member.

## **VI. ISSUES**

Issues presented for consideration in this Appeal are:

- A. Whether claims 1 – 5, 7 – 9, and 19 - 21 are properly rejected under 35 U.S.C. § 103 for obviousness where the combination of the applied references does not teach the claimed invention.
- B. Whether claims 1 – 5, 7 – 9, and 19 - 21 are properly rejected under 35 U.S.C. § 103 for obviousness where the applied references would not have been properly combinable.
- C. Whether claims 12 and 14 are properly rejected under 35 U.S.C. § 103 for obviousness where the combination of the applied references does not teach the claimed invention.
- D. Whether claims 12 and 14 are properly rejected under 35 U.S.C. § 103 for obviousness where the applied references would not have been properly combinable.

## **VII. GROUPING OF CLAIMS**

In compliance with 37 C.F.R. § 1.192(c)(5), Applicant states that claims 1 – 5, 7 – 9, 12 and 14, and 19 - 21 stand or fall together.

## **VIII. ARGUMENTS**

### **A. Description of the prior art cited by the Examiner.**

#### **1. Rugg.**

Rugg (U.S. Patent No. 2,380,793) is directed to an outlet box support consisting of back plate support 7 and clamping member 8. Outlet box 2 includes a base member 4 having a central circular hole 6 and a plurality of holes 5 disposed around the central hole

6. The support also includes a back plate support 7 that has slots 10 and ears 12. Support also includes a clamping frame 8 that includes two side arms 14. The support is assembled by inserting the ears 12 into the holes 5 such that support 7 is disposed over the central hole 6. Subsequently, the side arms 14 of clamping frame 8 are inserted into the slots 10 of back support 7. Finally, screw element 9 is inserted into clamping frame 8 and support 7 to thereby position outlet box 2 between back plate support 7 and clamping frame 8. As shown in Figure 2, the clamping frame 8 includes bar hanger openings 15. Accordingly, the stated purpose of the Rugg invention is to support outlet box 2 with a bar hanger 1.

2. Bell.

Bell (U.S. Patent No. 6,545,216) is directed to a mounting assembly that includes a junction box 14. The junction box has a top wall and a downwardly extending side wall defining an interior volume. The junction box supports one or more fixture supports 40. The fixture supports 40 include fixture fasteners 44, 48. The fixture fasteners may be male or female. The fixture support fasteners are disposed in the supports at two offset positions. The fixture support is disposed in the junction box by rotating the support threads into a hole in the junction box in a clockwise motion.

3. Reiker

Reiker (U.S. Patent No. 6,207,897) is directed to an electrical fixture mounting assembly includes a junction box having a wall defining a junction box cavity therein. The junction box may be coupled to one or more attachment members. The attachment members include spaced apart mounting brackets which are configured to engage various sizes and shapes of structural supports. The mounting brackets are coupled to a flat exterior base portion of the junction box by fasteners.

B. The combination of Rugg and Bell does not teach the claimed invention recited in claims 1 – 5, 7 – 9, and 19 - 21.

In the final Office Action of December 20, 2005, the Examiner rejected pending claims 1 – 5, 7 – 9, and 19 - 21 under 35 U.S.C. § 103 as being unpatentable over Rugg in

view of Bell.

The combination of prior art references must teach or suggest all the claim limitations. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). The Examiner has not made a prima facie case of obviousness because she has not shown where the prior art references teach or suggest all the claim limitations.

The first element recited in claim 1 is “*an electrical box including a base member and a side member,...the base member also including a plurality of slots, the side member being connected to the base member to form an interior volume, the side member having a first flat portion...and a second flat portion...*” Both the instant specification and drawings show slots 200 disposed in the flat base portion of electrical box 20. On the other hand, Rugg discloses a base member 4 that includes a central opening 6. There are clearly no slots present. Central opening 6 accommodates a U-shaped bar hanger 8 which mates with backplate 7 disposed outside the base member 4.

The Examiner willfully mischaracterizes the Rugg reference and deliberately redefines the claim language to maintain her rejection. The Applicants pointed out to the Examiner, in response to the Final Office Action, the problems and inconsistencies in her rejection. Applicants noted that the Examiner’s rejection states that “*Rugg’s base member 4 along with back support 7 together constitute the base member.*” See page 2 of the Office Action. While the applicants are entitled to be their own lexicographer and define claim terms, the Examiner is not. Further, the Examiner is not entitled to rewrite a related art reference (Rugg) to suit her needs. Claim 1 explicitly recites an electrical box having a base portion with slots. Rugg explicitly discloses an outlet box 2 having a central opening 6. Rugg specifically states that backplate 7 is separate and distinct from outlet box 2. See Col. 1, lines 43 – 50. Rugg simply does not teach or suggest an electrical box having slots disposed in the base member – the claim element is simply not disclosed by Rugg. The only way the Examiner can fit “the square peg into the round hole” is to redefine both the claim and the reference to suit her needs. Unfortunately for the Examiner, this type of Examination technique is improper under the current U.S. patent laws/rules. The Examiner makes no representation that Bell supplies the features missing from Rugg. Accordingly, neither Rugg nor Bell, whether taken alone, or in

combination, teach or suggest an electrical box that includes a plurality of slots that are formed in the base portion of the box.

The next recited element in claim 1 is directed to a mounting assembly. The Examiner fails to point to any portion of Rugg or Bell that has the recited mounting assembly. As pointed out above, Rugg does not teach or suggest a base member with slots. Rugg also does not teach or suggest “*a mounting assembly including a plurality of tab members configured to be inserted into the plurality of slots such that the plurality of tab members and the base member form a channel, the channel being configured to receive the structural member therein...*” The appellants first point out that Rugg’s U-shaped clamp 8 is not insertable into slots formed in the base member of an electrical box. As noted, Rugg does not teach or suggest this feature. Instead, U-shaped clamp 8 is inserted into the central opening 6 of the electrical box 2. Second, the combination of clamp 8, backplate 7, and base portion 4 do not form a channel configured to receive a structural member therein, as recited in claim 1. In fact, clamp 8 has a bar hanger 15 attached thereto. The Examiner makes no representation that Bell supplies the features missing from Rugg. Accordingly, neither Rugg nor Bell, whether taken alone, or in combination, teach or suggest the *mounting assembly* recited in claim 1.

It is well settled that the combination of prior art references must teach or suggest all the claim limitations. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). In this case, the Examiner has failed to make a prima facie case of obviousness because she has failed to show where the references teach or suggest all of the limitations recited in claim 1. Specifically, the Examiner failed to show where the combination teaches or suggests an electrical box that includes a plurality of slots that are formed in the base portion of the box or the recited mounting assembly.

- C. Claims 1 – 5, 7 – 9, and 19 - 21 are patentable under 35 U.S.C. § 103(a) because Rugg and Bell would not have been properly combinable.

There must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior

art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). The U.S. Court of Appeals for the Federal Circuit has also stated that the Examiner has the burden under 35 U.S.C. § 103 to establish a *prima facie* case of obviousness and in the case of combined references, the Examiner can satisfy this burden "only by showing some objective teaching in the prior art . . . would lead that individual to combine the relevant teachings of the references." *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). Moreover, both the suggestion and the reasonable expectation of success must be found in the prior art, not in the applicant's disclosure. *In re Vaeck*, 20 U.S.P.Q.2d 1438, 1442 (Fed. Cir. 1991). The Examiner has failed to meet her burden. On pages 2 – 3, of the final Office Action, the Examiner stated that: "It would have been obvious to one of ordinary skill in the art to have provided Rugg's fixture support assembly with Bell's first and second support fixture for supporting ceiling and lighting fixtures as taught to be desirable by Bell."

There are several problems with the Examiner's statement. First, it is ambiguous in the sense that one cannot tell whether she means to assert that Bell has taught that it is desirable to support ceiling and lighting fixtures, or that Bell has taught that it is desirable to combine Bell and Rugg. If the Examiner means the former, no one can deny that it is desirable to support ceiling and lighting fixtures - the effects of gravity must be taken into account during any installation of ceiling fixtures. On the other hand, if the Examiner means to assert that Bell has taught that it is desirable to combine Bell and Rugg, i.e., to provide "Rugg's fixture support with Bell's first and second support fixtures," the appellants note that Rugg does not disclose a *fixture control assembly*."

Referring to Rugg, col. 1, lines 36 – 42, Rugg specifically states that the electrical box is a standardized box in use at the time the invention was made (1943). Rugg also specifically states that the inventive portion of the disclosure is directed to the electrical box support, and not directed to any fixture support mechanism within the box. Finally, appellants note that the Examiner fails to show where Bell suggests that the Rugg reference is combinable with Bell. Indeed, the Examiner cannot do so because Bell does not reference Rugg. Accordingly, the Examiner failed to make a *prima facie* case of obviousness because she failed to provide teaching, suggestion or incentive supporting the combination.



As noted in the applicants' last two communications, the prior art does not suggest the desirability of the combination because the secondary reference (Bell) changes the principle of operation of the primary reference (Rugg). It is well settled that if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). In this case, the inventor of the primary reference, Edward Rugg, explicitly states "A box as shown in the drawing is standardized in the wiring industry...My invention has to do with a means for mounting such a standardized box *on a bar hanger*." See col. 1, lines 40 – 41. Bell does not use a standardized electrical box that is usable with a bar hanger. Bell discloses holes 26 and apertures 28, which are used to accommodate screws and/or nails for directly "attaching the electrical box to studs, braces, or joists." See col. 3, lines 42 – 53. Further, the fixture supports 40 cannot be used with the standardized electrical box disclosed by Rugg. The fixture supports 40 can only be accommodated by the junction box disclosed by Bell. The whole point of the Bell disclosure is to provide a junction box/fixture assembly that will provide a plurality of offset distances for various types of ceiling fixtures. The various objects of Bell's invention are to provide an improved junction box because of the limitations associated with standard/conventional boxes. See col. 1, line 40 – col. 2, line 39.

Also, there can be no suggestion or motivation to make a proposed modification if the proposed modification renders the prior art unsatisfactory for its intended purpose. *In re Gordon*, 221 USPQ 1125 (Fed. Cir. 1984). One skilled in the art would not be motivated to combine Rugg and Bell because the U-shaped clamp 8 protrudes into the interior space of the electrical box making the interior space unusable. In contrast, Bell discloses fixture supports 40 that are disposed in the interior of the box 14. The support includes holes 44, 48 for fixtures that may be disposed at least partially in the interior portion of the box.

Instead of providing a substantive response to the above stated arguments, the Examiner has chosen to insert a form paragraph taken from the patent office database. The Examiner then argues that Bell and Reiker (not Rugg) can be combined, essentially, because both are directed to electrical boxes. Accordingly, the Examiner failed to answer

the applicants' arguments regarding the combinability of Rugg and Bell in both the Final Rejection and in the Advisory Action.

For all the reasons stated *supra*, there would have been no reason to combine these references. For the reasons provided above, the rejection of claims 1 – 5, 7 – 9, and 19 - 21 as being unpatentable for obviousness under 35 U.S.C. §103(a) is improper, and should be withdrawn.

D. The combination of Rugg, Bell and Reiker does not teach the claimed invention recited in claims 12 and 14.

The combination of prior art references must teach or suggest all the claim limitations. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). The Examiner has not made a prima facie case of obviousness because she has not shown where the prior art references teach or suggest all the claim limitations.

In the final Office Action of December 20, 2005, the Examiner rejected pending claims 12 and 14 under 35 U.S.C. § 103 as being unpatentable over Rugg in view of Bell as applied to claims 1, 6, 8, and 11, and further in view of Reiker. The Examiner states that “Rugg and Bell combined disclosed all of the claimed features of applicant’s invention except for being mounted to a joist...Reiker teaches an electrical box with a U-Shaped mounting assembly...”

Appellants note that claim 7, which depends from claim 1, recites that the mounting assembly “*is a U-shaped bracket.*” Claim 8, which depends from claim 7, recites that: “*the U-shaped bracket further comprises a flat support member configured to be disposed in an abutting face-to-face position relative to a first side of the base member when the plurality of tab members are inserted into the plurality of slots; and wherein the plurality of tab members are connected to the flat support member, each tab member being disposed on a second side of the base member when the plurality of tab members are inserted into the plurality of slots.*” Claim 10, which depends from claim 8, recites that “*the flat support member is an H-shaped member.*” Claim 12, which depends from claim 10, recites that “*the at least one structural support member includes a joist member.*” Claim 14, which depends from claim 8, recites that “*the flat support member*

*is configured to be connected to the first side of the base member by a plurality of connectors.”*

The appellants point out that the Examiner makes no representation that Reiker overcomes any of the deficiencies of Rugg and Bell with respect to claim 1. The appellants also point out that the Examiner provides no discussion whatsoever as to where either Rugg or Bell disclose any of the limitations of claims 7, 8, or 10. Thus, the Examiner fails to show where Rugg, Bell, or Reiker, whether taken alone or in combination, teach or suggest it does not disclose all of the limitations of claim 12, which include the limitations of claim 1, 7, 8, and 10.

With regard to claim 14, claim 14 is directed to the flat support member being coupled to the interior flat surface of the base member. Reiker’s bracket is coupled to the flat exterior side of the box. The appellants also point out that the Examiner provides no discussion whatsoever as to where either Rugg or Bell disclose any of the limitations of claims 7 and 8.

Therefore the dependent claims 12 and 14, while allowable in their own right, are also allowable by virtue of their dependency from claims 1, 7, 8, or 10.

E. Claims 12 and 14 are patentable under 35 U.S.C. § 103(a) because Rugg, Bell and Reiker would not have been properly combinable.

The Examiner states that “it would have been obvious to one of ordinary skill in the art at the time the invention was made to have mounted the ceiling fixture of Rugg and Bell to a ceiling joist via the U-Shaped mounting assembly and to mount the flat member using plurality of connectors for a more secure fit as taught to be desirable by Reiker.

For all the reasons stated in paragraph VIII.C. *supra*, there would have been no reason to combine Rugg and Bell.

As noted previously, there can be no suggestion or motivation to make a proposed modification if the proposed modification renders the prior art unsatisfactory for its intended purpose. *In re Gordon*, 221 USPQ 1125 (Fed. Cir. 1984). In this case, the expressed intended purpose of Rugg is to provide an improved means for mounting a standard electrical box to a bar hanger. One of ordinary skill in the art would not be

motivated to combine the base reference Rugg with Reiker because the proposed combination renders Rugg unsatisfactory for its intended purpose – i.e., mounting a standard electrical box to a bar hanger. Similarly, the proposed combination renders Reiker unsatisfactory for its intended purpose – i.e., mounting a box to a joist.

The Examiner has not provided any support for her assertion that it would have been obvious to one skilled in the art that ceiling fixture support assembly with the appellants' claimed properties would inherently be achieved by picking and choosing portions of structures described in the *three* different cited references. Having failed to do so, the Examiner has not made a *prima facie* case of obviousness.

For all the reasons stated *supra*, there would have been no reason to combine these references. For the reasons provided above, the rejection of claims 12 and 14 as being unpatentable for obviousness under 35 U.S.C. §103(a) is improper, and should be withdrawn.

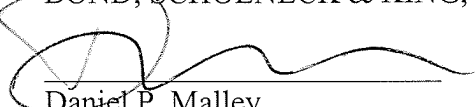
**IX. CONCLUSION**

In conclusion, Appellants request a reversal of each of the grounds of rejection maintained by the Examiner. If there are any other fees due in connection with the filing of this Brief on Appeal, please charge the fees to our Deposit Account No. 50-1546. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

Date: 5-17-06

BOND, SCHOENECK & KING, PLLC



Daniel P. Malley

Registration No. 43,443

BOND, SCHOENECK & KING, PLLC

10 Brown Rd.

Suite 201

Ithaca, NY 14850-1248

**APPENDIX TO BRIEF ON APPEAL**

**Listing of claims:**

Claims on appeal are 1 – 5, 7 – 9, 12, 14, and 19 - 21:

1. (previously presented) A ceiling fixture support assembly for mounting an electrical fixture to at least one structural support member, the assembly comprising:
  - an electrical box including a base member and a side member, the base member being substantially disk shaped having a first beveled edge and a second beveled edge disposed parallel to the first beveled edge, the base member also including a plurality of slots, the side member being connected to the base member to form an interior volume, the side member having a first flat portion corresponding to the first beveled edge and a second flat portion corresponding to the second beveled edge;
  - a fixture support assembly including a first fixture support configured to be coupled to the first flat portion and a second fixture support configured to be coupled to the second flat portion, the fixture support assembly being configured to support a ceiling fixture within the interior volume; and
  - a mounting assembly including a plurality of tab members configured to be inserted into the plurality of slots such that the plurality of tab members and the base member form a channel, the channel being configured to receive the structural member therein, whereby the electrical box is coupled to the structural support member.
2. (Original) The assembly of claim 1, wherein the electrical box is configured to be coverable by a fixture base cover.
3. (Original) The assembly of claim 1, wherein the fixture support assembly is configured to support a ceiling fan fixture.

4. (Original) The assembly of claim 3, wherein the ceiling fan fixture includes a light fixture.
5. (Original) The assembly of claim 1, wherein the fixture support assembly is configured to support a lighting fixture.
6. (canceled)
7. (previously presented) The assembly of claim 1, wherein the mounting assembly is a U-shaped bracket.
8. (previously presented) The assembly of claim 7, wherein the U-shaped bracket further comprises a flat support member configured to be disposed in an abutting face-to-face position relative to a first side of the base member when the plurality of tab members are inserted into the plurality of slots and wherein the plurality of tab members are connected to the flat support member, each tab member being disposed on a second side of the base member when the plurality of tab members are inserted into the plurality of slots.
9. (Original)The assembly of claim 8, wherein the flat support member is substantially rectangular in shape.
10. (Original) The assembly of claim 8, wherein the flat support member is an H-shaped member.
11. (canceled)
12. (previously presented) The assembly of claim 10, wherein the at least one structural support member includes a joist member.

13. (Original) The assembly of claim 8, wherein the plurality of tab members includes four tab members.

14. (previously presented) The assembly of claim 8, wherein the flat support member is configured to be connected to the first side of the base member by a plurality of connectors.

15. (previously presented) The assembly of claim 14, wherein the plurality of connectors include press-in rivets.

16. (Withdrawn) The assembly of claim 1, wherein the mounting assembly further comprises:

- a slide mount rail configured to be connected to the at least one structural member; and

- a slide member disposed within the slide mount rail and configured to move along a linear direction within the slide mount rail, the slide member being configured to be coupled to the electrical box.

17. (Withdrawn) The assembly of claim 16, wherein the slide mount rail includes a first connector disposed at a first end of the slide mount rail, and a second connector disposed at a second end of the slide mount rail distal to the first end.

18. (Withdrawn) The assembly of claim 17, wherein the first connector includes a first plate member configured to be mounted to a first structural member, and the second connector includes a second plate member configured to be mounted to a second structural member.

19. (Original) The assembly of claim 1, wherein the first fixture support includes a specially designed shaft configured to be inserted and orbitally riveted into an opening in the first flat portion, and the second fixture support includes a specially designed shaft configured to be inserted and orbitally riveted into an opening in the second flat portion.



20. (Original) The assembly of claim 1, wherein the first fixture support and the second fixture support each include connector holes configured to accommodate connectors for mounting the fixture.

21. (Original) The assembly of claim 1, wherein the mounting assembly comprises a plurality of connectors.